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(54) VOLTAGE REGULATOR FOR ELECTRIC POWER SUPPLY

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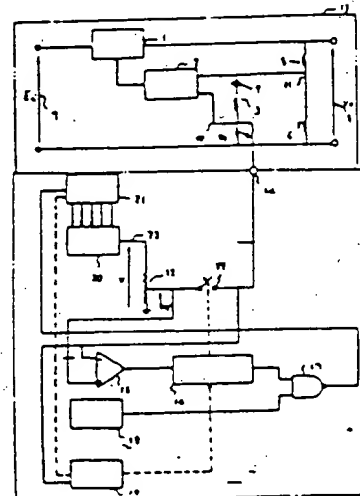
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**PURPOSE:** To regulate output voltage up to a required range of variation without changing the output voltage independently of the position (division ratio) of an externally adjustable resistor at the connection of the resistor.

**CONSTITUTION:** The standard voltage  $V_s$  of a power supply 13 is inputted to a terminal 14 of an output voltage regulating device 30 of this invention and the voltage  $V_s$  is compared with the voltage  $V_s$  divided from voltage  $V$  by an externally adjustable resistor 12 in a comparator 15. An output of the comparator 15 is inputted to a gate 17 through a latch circuit 16 to find NAND logic with a pulse outputted from an oscillator 18. An output of the gate 17 is inputted to a binary counter 21, an output of the counter 21 is inputted to a D/A converter 20 and an output 23 from the D/A converter 20 is outputted as a voltage  $V$ . The latch circuit 16 latches an output from the comparator 15 in accordance with the output and also controls ON/OFF of a switch 22. A reset circuit 19 resets the counter 21 and the latch circuit 16.



1: control circuit, 2: error amplifier

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